

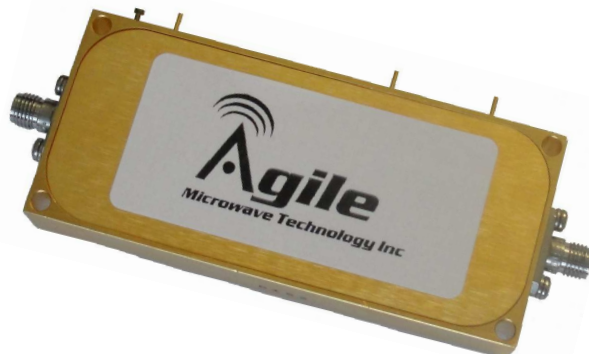
AMT-A0042 1930 MHz to 1990 MHz High Power Amplifier

Data Sheet



Features

- 1930 MHz to 1990 MHz Frequency Range
- Psat > +40 dBm
- Gain 10 dB
- Gain Flatness < ± 0.5 dB
- Power Detector
- Internally Regulated
- Operates from +28V Supply
- Unconditionally Stable
- State-of-the-Art Technology



Description

The AMT-A0042 is a High power amplifier with good power over the full frequency range. The performance is achieved through the use of AMTI's proprietary technology. The amplifier I/Os are Internally matched to 50 Ohms and are DC blocked. The AMT-A0042 is ideal for use as driver amplifier, or power amplifier in a Hi-Rel communications system for Commercial or Military applications

Applications

- Output Power Amplifier
- Driver Amplifier
- Communication systems
- Microwave Radio systems
- Test Equipment

MAXIMUM RATINGS¹

Parameter	Symbol	Units	MIN	MAX
Operating Temperature – Case	T _{MO}	° C	-20	+65
Storage Temperature - Case	T _{MS}	° C	-40	+125
RF Input power (CW)	P _{in}	dBm		+20
Die T _{Junction}	T _J	° C		+150
Positive Supply Voltage	V _{+SS}	V		+29V

1.Stresses above those listed under "Absolute Maximum Rating" may cause permanent damage to the device. This is a stress rating only and functional operation of the device at these or any other conditions above those indicated in the operational sections of this specification is not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

ELECTRICAL SPECIFICATIONS @ 23°C

Parameter	Conditions	Units	MIN	Typical	MAX
Frequency Range		MHz	1930		1990
Gain	Small Signal	dB	9	10	
Gain Flatness		dB		±0.5	
Output Power (Psat)	Saturated Output Power	dBm	+39	+40	
OIP3	OIP3 measured @ 1950 MHz Two tone F1-F2=10MHz	dBm	+45	+47	
Noise Figure		dB		8	
RF Input Impedance	Reference to 50 ohms VSWR			1.8:1	2.0:1
RF Output Impedance	Reference to 50 ohms			1:9:1	2.2:1
Stability Factor K	Unconditionally Stable		1		
Stability Factor K	Unconditionally Stable		0		
Supply Voltage Positive:		V		+28V	
Supply Current Positive:		mA		1300	

Notes:

1/ Unconditional Stability: ($K > 1$) and ($B1 > 0$)

Customized configurations of the above specifications are available

Contact us for custom configurations and special requirements.

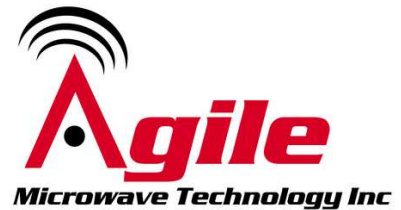
Our highly experienced team of engineers can quickly identify and implement innovative solutions using latest technology to improve performance and reduce cost.

- Add additional functionality: Input limiter, Temperature compensation, Amplitude/Phase matching, Amplitude/Phase Tracking, Automatic Gain control, Gain sloping, Bypass path, Specific supply voltage, Regulation, Power detector, Health status, and others
- Integrated: Filters, Switches, Limiter, Digital attenuator, Phase shifter, Microcontroller, Multiple amplifiers, Switch matrix, Comb generators and others
- Mechanical: Custom packages - Surface Mount, Connectorized, Waveguide, Carrier, Drop-in, Hermetic and others

Agile Microwave Technology Inc is the logical choice for all your commercial or military RF/Microwave components/module requirements.

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